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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/998,350

DATE: 12/23/2002 P.6

TIME: 14:13:23

Input Set : A:\PTO.VSK.txt

Output Set : N:\CRF4\12232002\I998350.raw

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3 <110> APPLICANT: Roller, Peter P
4         Long, Ya-Lin
5         Wang, Feng-Di T
6         King, Richard C
7         Yang, Tajun
8 <120> TITLE OF INVENTION: PEDOX-STABLE, NON-PHOSPHORYLATED CYCLIC PEPTIDE INHIBITORS
OF SH2 DOMAIN.
9         BINDING TO TARGET PROTEIN, CONJUGATES THEREOF, COMPOSITIONS AND METHODS OF
10        SYNTHESIS AND USE
11 <130> FILE REFERENCE: 1146-3
12 <140> CURRENT APPLICATION NUMBER: 09/998,350
C--> 16 <141> CURRENT FILING DATE: 2002-12-09
17 <150> PRIORITY APPLICATION NUMBER: PCT/US00/15201
18 <151> PRIORITY FILING DATE: 2000-06-02
19 <160> PRIORITY APPLICATION NUMBER: 60/137,187
20 <161> PRIORITY FILING DATE: 1999-06-02
21 <210> NUMBER OF SEQ ID NOS: 19
22 <211> SOFTWARE: PatentIn version 3.1
23 <212> SEQ ID NO: 1
24 <213> LENGTH: 9
25 <214> TYPE: PRT
26 <215> ORGANISM: Artificial Sequence
27 <216> FEATURE:
28 <217> OTHER INFORMATION: Synthetic
29 <218> FEATURE:
30 <219> NAME KEY: misc_feature
31 <220> LOCATION: 1..(1)
32 <221> OTHER INFORMATION: Xaa = Glu, which is gamma-carboxy-L-glutamic acid
33 <222> FEATURE:
34 <223> NAME KEY: misc_feature
35 <224> LOCATION: 9..(9)
36 <225> OTHER INFORMATION: Tyr at position 9 is an amide, i.e. C(O)NH
37 <226> FEATURE:
38 <227> NAME KEY: misc_feature
39 <228> LOCATION: 1..(9)
40 <229> OTHER INFORMATION: Xaa (Glu) and Tyr at position 9 are bridged together, making
this
41         peptide cyclic
42 <400> SEQUENCE: 1
W--> 57 Xaa Leu Tyr Glu Asn Val Gly Met Tyr
58 1         5
59 <210> SEQ ID NO: 2
60 <211> LENGTH: 9
61 <212> TYPE: PRT

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64 <213> ORGANISM: Artificial Sequence

## RAW SEQUENCE LISTING

DATE: 12/23/2002

PATENT APPLICATION: US/09/998,350

TIME: 14:15:23

Input Set : A:\PTO.VSK.txt

Output Set: N:\CRF4\12232002\I998350.raw

66 <200> FEATURE:  
 67 <210> OTHER INFORMATION: Synthetic  
 68 <210> FEATURE:  
 70 <211> NAME KEY: misc\_feature  
 71 <212> LOCATION: (1)..(1)  
 72 <213> OTHER INFORMATION: Xaa at position 1 is alpha-amino-adipic acid (Adi)  
 73 <213> FEATURE:  
 76 <211> NAME/KEY: misc\_feature  
 77 <212> LOCATION: (4)..(4)  
 78 <213> OTHER INFORMATION: Xaa at position 4 is Glu or Adi  
 81 <213> FEATURE:  
 82 <211> NAME/KEY: misc\_feature  
 83 <212> LOCATION: (9)..(9)  
 84 <213> OTHER INFORMATION: Tyr at position 9 is an amide, i.e., C(O)NH  
 85 <213> FEATURE:  
 86 <211> NAME/KEY: misc\_feature  
 87 <212> LOCATION: (1)..(9)  
 90 <213> OTHER INFORMATION: Xaa at position 1 and Tyr at position 9 are bridged together,

mak

91           in this peptide cyclic  
 91 <100> SEQUENCE: 2

W--&gt; 96 Xaa Leu Tyr Xaa Asn Val Gly Met Tyr

97 1           5  
 100 <100> SEQ ID NO: 3  
 101 <110> LENGTH: 9  
 102 <120> TYPE: PRI  
 103 <130> ORGANISM: Artificial Sequence  
 104 <200> FEATURE:  
 105 <210> OTHER INFORMATION: Synthetic  
 106 <210> FEATURE:  
 107 <211> NAME/KEY: misc\_feature  
 108 <212> LOCATION: (1)..(1)  
 109 <213> OTHER INFORMATION: Xaa is any amino acid other than Glu  
 110 <213> FEATURE:  
 111 <211> NAME/KEY: misc\_feature  
 112 <212> LOCATION: (9)..(9)  
 113 <213> OTHER INFORMATION: Tyr at position 9 is an amide, i.e., C(O)NH  
 114 <213> FEATURE:  
 115 <211> NAME/KEY: misc\_feature  
 116 <212> LOCATION: (1)..(9)  
 117 <213> OTHER INFORMATION: Xaa and Tyr at position 9 are bridged together, making this

pepti

118           is cyclic  
 117 <400> SEQUENCE: 3

W--&gt; 129 Xaa Leu Tyr Glu Asn Val Gly Met Tyr

130 1           5  
 133 <100> SEQ ID NO: 4  
 134 <110> LENGTH: 10  
 135 <120> TYPE: PRI  
 136 <130> ORGANISM: Artificial Sequence  
 137 <200> FEATURE:

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/998,350

DATE: 12/23/2002

TIME: 14:13:23

Input Set : A:\PTO.VSK.txt

Output Set: N:\CRF4\12232002\I998350.raw

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140 <222> OTHER INFORMATION: Synthetic
141 <223> FEATURE:
142 <223> NAME/KEY: misc_feature
143 <223> LOCATION: (1)..(1)
144 <223> OTHER INFORMATION: Xaa = Gla, which is gamma-carboxy-L-glutamic acid
145 <223> FEATURE:
146 <223> NAME/KEY: misc_feature
147 <223> LOCATION: (9)..(10)
148 <223> OTHER INFORMATION: Cys at position 10 is an amide, i.e., C(O)NH
149 <223> FEATURE:
150 <223> NAME/KEY: misc_feature
151 <223> LOCATION: (1)..(10)
152 <223> OTHER INFORMATION: Xaa (Gla) and Cys are bridged together, making this peptide
cycli
153
160 <400> SEQUENCE: 4
W--> 162 Xaa Leu Tyr Glu Asn Val Gly Met Tyr Cys
163 1 5 10
164 <400> SEQ. ID NO: 5
165 <410> LENGTH: 10
166 <411> TYPE: PRT
167 <412> ORGANISM: Artificial Sequence
168 <413> FEATURE:
169 <413> OTHER INFORMATION: Synthetic
170 <413> FEATURE:
171 <413> NAME/KEY: misc_feature
172 <413> LOCATION: (1)..(1)
173 <413> OTHER INFORMATION: Xaa = Gla, which is gamma-carboxy-L-glutamic acid
174 <400> SEQUENCE: 5
W--> 182 Xaa Leu Tyr Glu Asn Val Gly Met Tyr Cys
183 1 5 10
184 <400> SEQ. ID NO: 6
185 <410> LENGTH: 11
186 <411> TYPE: PRT
187 <412> ORGANISM: Artificial Sequence
188 <413> FEATURE:
189 <413> OTHER INFORMATION: Synthetic
190 <413> FEATURE:
191 <413> NAME/KEY: misc_feature
192 <413> LOCATION: (1)..(1)
193 <413> OTHER INFORMATION: Xaa = Gla(OtBu)2, which is di- tert-butoxy-gamma-carboxy-L-
glutam
194
195
196 <223> FEATURE:
197 <223> NAME/KEY: misc_feature
198 <223> LOCATION: (3)..(3)
199 <223> OTHER INFORMATION: Tyr at position 3 is modified to Tyr(tBu), which is tert-
butyl--y
200
201
202 <223> FEATURE:
203 <223> NAME/KEY: misc_feature
204 <223> LOCATION: (4)..(4)

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## RAW SEQUENCE LISTING

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DATE: 12/23/2002

TIME: 14:13:23

Input Set : A:\PTO.VSK.txt

Output Set: N:\CRF4\12232002\I998350.raw

211 <223> OTHER INFORMATION: Glu at position 4 is modified to Glu(OtBu), which is tert-butoxy/-

212 <200> FEATURE:

213 <210> NAME/KEY: misc\_feature

214 <211> LOCATION: (5)..(5)

215 <223> OTHER INFORMATION: Asn at position 5 is modified to Asn(Trt), which is is trytyl-asp

216 <200> FEATURE:

217 <210> NAME/KEY: misc\_feature

218 <211> LOCATION: (9)..(9)

219 <223> OTHER INFORMATION: Tyr at position 9 is modified to Tyr(tBu), which is tert-butyl-tyr

220 <200> FEATURE:

221 <210> NAME/KEY: misc\_feature

222 <211> LOCATION: (10)..(10)

223 <223> OTHER INFORMATION: Cys at position 10 is modified to Cys(Trt), which is trytyl-cyste

224 <200> FEATURE:

225 <210> NAME/KEY: misc\_feature

226 <211> LOCATION: (10)..(10)

W--> 238 Xaa Leu Tyr Glu Asn Val Gly Met Tyr Cys

239 <1> 1 5 10

240 <100> SEQ ID NO: 1

241 <110> LENGTH: 9

242 <120> TYPE: PRT

243 <130> ORGANISM: Artificial Sequence

244 <200> FEATURE:

245 <210> NAME/KEY: misc\_feature

246 <211> LOCATION: (1)..(1)

247 <212> OTHER INFORMATION: Xaa = Glu, which is gamma-carboxy-L-glutamic acid

248 <200> FEATURE:

249 <210> NAME/KEY: misc\_feature

250 <211> LOCATION: (1)..(1)

251 <212> OTHER INFORMATION: Xaa has a ClCH2C(O)- group attached

252 <200> FEATURE:

253 <210> NAME/KEY: misc\_feature

254 <211> LOCATION: (9)..(9)

255 <212> OTHER INFORMATION: Tyr at position 9 has a -C(CH2SH)C(O)NH2 group attached

256 <200> FEATURE:

257 <210> NAME/KEY: misc\_feature

258 <211> LOCATION: (10)..(10)

259 <212> OTHER INFORMATION: Cys at position 10 is modified to Cys(Trt), which is trytyl-cyste

W--> 270 Xaa Leu Tyr Glu Asn Val Gly Met Tyr

271 <1> 1 5 10

272 <100> SEQ ID NO: 2

273 <110> LENGTH: 10

274 <120> TYPE: PRT

275 <130> ORGANISM: Artificial Sequence

276 <200> FEATURE:

277 <210> NAME/KEY: misc\_feature

278 <211> LOCATION: (1)..(1)

279 <212> OTHER INFORMATION: Xaa = Glu, which is gamma-carboxy-L-glutamic acid

## RAW SEQUENCE LISTING

DATE: 12/23/2002

PATENT APPLICATION: US/09/998,350

TIME: 14:13:23

Input Set : A:\PTO.VSK.txt

Output Set: N:\CRF4\12232002\I998350.raw

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284 <222> LOCATION: (1)..(1)
285 <223> OTHER INFORMATION: Xaa = Adi, which is alpha-amino-adipic acid
286 <224> FEATURE:
287 <225> NAME KEY: name_feature
288 <226> LOCATION: (1)..(1)
289 <227> OTHER INFORMATION: Xaa has a CH2CO- group attached
290 <228> FEATURE:
291 <229> NAME KEY: name_feature
292 <230> LOCATION: (10)..(10)
293 <231> OTHER INFORMATION: Cys is an amide, i.e., C(O)NH
294 <232> FEATURE:
295 <233> NAME KEY: name_feature
296 <234> LOCATION: (1)..(10)
297 <235> OTHER INFORMATION: Xaa (Adi) and Cys are bridged together, making this
cycli
304
305 <400> SEQUENCE: 8
W--> 309 Xaa Leu Tyr Glu Asn Val Gly Met Tyr Cys
310 1 5 10
311 <10> SEQ ID NO: 9
312 <11> LENGTH: 10
313 <12> TYPE: PRT
314 <13> ORGANISM: Artificial Sequence
315 <200> FEATURE:
316 <201> OTHER INFORMATION: Synthetic
317 <202> FEATURE:
318 <203> NAME KEY: name_feature
319 <204> LOCATION: (1)..(2)
320 <205> OTHER INFORMATION: At position 1, Xaa = Adi, which is alpha-amino-adipic acid
321 <206> FEATURE:
322 <207> NAME KEY: name_feature
323 <208> LOCATION: (4)..(4)
324 <209> OTHER INFORMATION: At position 4, Xaa = Adi, which is alpha-amino-adipic acid
325 <210> FEATURE:
326 <211> NAME KEY: name_feature
327 <212> LOCATION: (10)..(10)
328 <213> OTHER INFORMATION: Cys is an amide, i.e., C(O)NH
329 <214> FEATURE:
330 <215> NAME KEY: name_feature
331 <216> LOCATION: (1)..(10)
332 <217> OTHER INFORMATION: Xaa (Adi) at position 1 and Cys are bridged together, making
this
340 peptide cyclic
341 <400> SEQUENCE: 9
W--> 348 Xaa Leu Tyr Xaa Asn Val Gly Met Tyr Cys
349 1 5 10
350 <10> SEQ ID NO: 10
351 <11> LENGTH: 10
352 <12> TYPE: PRT
353 <13> ORGANISM: Artificial Sequence
354 <200> FEATURE:

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RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/09/998,350

DATE: 12/23/2002  
TIME: 14:13:24

Input Set : A:\PTO.VSK.txt  
Output Set: N:\CRF4\12232002\I998350.raw

**Please Note:**

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; Xaa Pos. 1  
Seq#:2; Xaa Pos. 1,4  
Seq#:3; Xaa Pos. 1  
Seq#:4; Xaa Pos. 1  
Seq#:5; Xaa Pos. 1  
Seq#:6; Xaa Pos. 1  
Seq#:7; Xaa Pos. 1  
Seq#:8; Xaa Pos. 1  
Seq#:9; Xaa Pos. 1,4  
Seq#:10; Xaa Pos. 8  
Seq#:11; Xaa Pos. 10  
Seq#:12; Xaa Pos. 8  
Seq#:13; Xaa Pos. 8,10  
Seq#:14; Xaa Pos. 10  
Seq#:18; Xaa Pos. 1  
Seq#:19; Xaa Pos. 1

**Invalid Line Length:**

The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:1; Line(s) 9

## VERIFICATION SUMMARY

DATE: 12/23/2002

PATENT APPLICATION: US/09/998,350

TIME: 14:13:24

Input Set : A:\PTO.VSK.txt

Output Set: N:\CRF4\12232002\I998350.raw

L:16 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:57 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0  
L:96 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0  
L:129 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0  
L:162 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0  
L:182 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0  
L:198 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:0  
L:170 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0  
L:309 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:0  
L:348 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:0  
L:380 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:0  
L:441 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:0  
L:474 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:0  
L:513 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:0  
L:567 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:0  
L:641 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:0  
L:677 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19 after pos.:0